# **BAYKON**

# LM 6 WEIGH TERMINAL USER MANUEL

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## 1. MAIN MENU

When you turn LM 6 terminal on by the switch at the back of the terminal, the device will ask you the entrance password.



The entrance password of LM 6 is "1234" after entering the password you will reach MAIN MENU.



Press the function keys shown at the left side of the window to enter the submenus.

You can watch the number of the vehicles inside from the lower left corner of the screen (Inbounded Records)

Also you can watch the completed weightings at the bottom of the screen (Completed Weighings).

# 2. INBOUND WEIGHING

If you press the function key [F1] in the main menu, you will enter the INBOUND WEIGHING menu.



The items took part in this menu have been explained at the following.

**LABEL NO:** This is a serial number given by the terminal automatically to store the inbound and outbound weighing data and to print on the label that indicates the number of weightings performed until that time.

**INBOUND DATE-TIME**: This is the date and time at which the inbound weighing performed. Given by the terminal automatically.

**EXIT DATE-TIME:** This is the date and time at which the outbound weighing performed. Given by the terminal automatically.

**LICENSE TAG:** This is the license tag number of the truck of which weightings will be performed.

this data will be entered manually.

**ENTRIES**: You can you can print and store 6 entries. The definitions of the entries will be made in "LABEL DATA-ENTRIES" menu.

**OPERATOR:** The information about the operator that will perform the weighing operation (10 characters)



As you enter the inbound weighing menu LM 6 will ask you the LICENSE TAG of the truck. After entering the truck you will enter the entries and operator info and press ENTER to perform weighing. A new window appears at the right bottom of the screen.

Press [F1] to save the record and get a label.

Press **[F2]** to save the record without getting a label.

Press [F3] to get a label without saving the record.

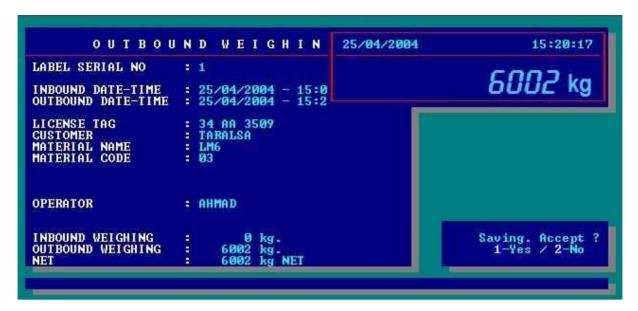
# 3. OUTBOUND WEIGHING

If you press the function key **[F2]** in the main menu you will enter the **OUTBOUND WEIGHING** menu.



When you enter the outbound weighing menu the license tags of the trucks of which inbound weighings had been made will be given in the table on the right side in alphabetical order. Press [TAB] key to get into the table and select the truck that you will make the outbound weighing by using arrow keys and accept by pressing the enter key. If you begin to type the tag, the table gets in to a new order that only includes the tag numbers that you have already typed.

After accepting the operator information LM 6 will perform weighing and ask you to save it.



Press 1 to accept saving or press 2 to decline.

# 4. ONE-PASS WEIGHING

If you press the function key [F3] in the main menu you will enter the ONE-PASS WEIGHING menu.



Select the desired truck from the predefined table at the right side of the screen and press enter to perform weighing.

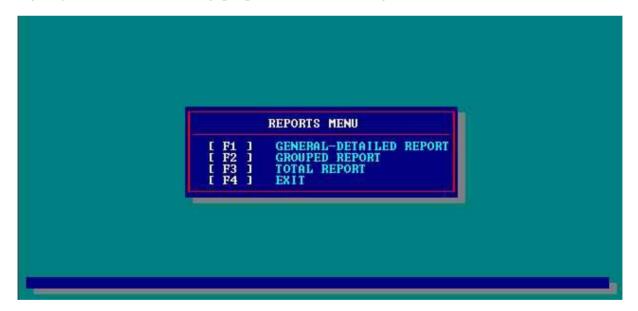


Press 1 to accept saving or press 2 to decline it.

By this option you can escape from weighing the empty truck for each weighing.

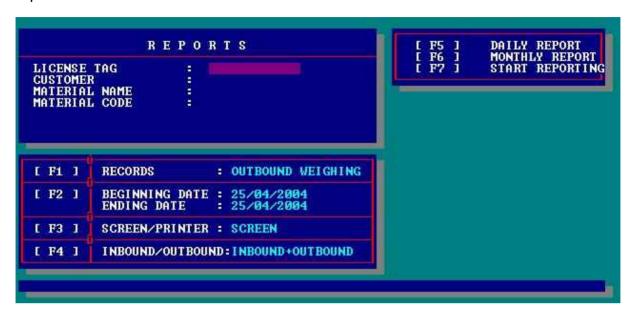
# 5. REPORTS MENU

If you press the function key [F4] in the main menu you will enter the REPORTS MENU



#### 5.1 GENERAL - DETAILED REPORT

If you press the function key **[F1]** in the reports menu, you will enter the general – detailed report submenu.



You can get a general report of all trucks and all entries or a detailed report of any truck or entry by entering the related data in the reports window that takes place on the upper left side of the screen in this submenu.

- **[F1]** Press this key to select of which weighing you want to report (inbound or outbound weighing)
- [F2] Press this key to determine the start and end date of the report
- **[F3]** Press this key to determine from where do you want to get the report (From the screen or from a printer)
- **[F4]** Press this key to determine about what do you want to report (Received material, sent material, both sent and received material)
- **[F5]** Press this key to start reporting.
- [F6] Press this key to get the daily report.
- [F7] Press this key to start reporting

#### 5.2 GROUPED REPORT

If you press the function key **[F2]** in the reports menu, you will enter the **GROUPED** report submenu.



The use of this menu is almost same as the general-detailed report menu, additionally by marking the entries in the reports window with " \* ", you can get the reports given separately in different pages for each data of the entry you have marked.

#### 5.3 TOTAL REPORT

If you press the function key **[F3]** in the reports menu, you will enter the **TOTAL REPORT** submenu.



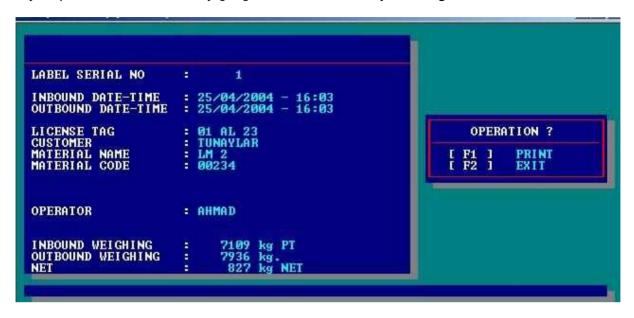
The use of this menu is almost same as the grouped report menu, differently by marking the entries in the reports window with " \* ", you can get the total values for each data of the entry you have marked.

# [F4] EXIT

If you press the function key [F3] in the reports menu, you will return to the main menu.

# 6. REPRINT LAST LABEL

If you press the function key [F5] in the main menu you will get into a new window.



This window shows the data of the last weighing. By pressing function key **F1** you can get the label about this weighing again. Pressing **F2** will take you back to the main menu.

# 7. OTHER OPERATIONS

If you press the function key **[F6]** in the main menu you will get into the **OTHER OPERATIONS** menu.



#### 7.1 LABEL DATA - ENTRIES

If you press the function key **[F1]** in the OTHER OPERATIONS menu you will get into the LABEL INFO – ENTRIES submenu.

```
COMPANY INFORMATION
COMPANY INFO - 1: BAYKON INDUSTRIAL CONTROL SYSTEMS
COMPANY INFO - 2: JOINT-STOCK COMPANY
COMPANY INFO - 3: TURKEY
ENTRIES
ENTRY 1: CUSTOMER
ENTRY 2: MATERIAL NAME
ENTRY 3: MATERIAL CODE
ENTRY 4:
ENTRY 5:
ENTRY 5:
ENTRY 6:
SCALE MANUFCTURER COMPANY INFORMATION
COMPANY INFO:

LABEL INFO - ENTRIES

[F1] COMPANY INFORMATION
[F2] ENTRIES
[F3] SCALE MANUFCTURER COMPANY INFORMATION
[F2] ENTRIES
[F4] EXIT
```

#### 7.1.1 CONPANY INFORMATION

You can enter user company's information by pressing function key **[F1]** in the label data – entries submenu.

#### **7.1.2 ENTRIES**

You can define 6 entries to store and print on label here. Press **[F2]** to enter new entries or change them. The descriptions and the uses of the fields are given below.

**ENTRIES**: You will type the entry headers those will be seen in the weighing menus.

**HOLD PREVIOUS:** You can determine if the previous data of this entry will stand for the next records or not. (1 means the data of previous weighing will stand for the next weighing, 2 means the entry will be empty and new data will be entered in the next weighing process)

**DEFINITION**: LM 6 can make simple mathematical operations like division (/), multiplication (\*), addition (+) and subtraction (-) for each entry. These operations will be defined here.

For example you want to determine the price of an incoming or outgoing material. You will define an entry for unit price and another one for the total price. Lets assume that entry 4 is the unit price and entry 5 is our total price. Total price is the multiplication of unit price and net weight. So we will define the formula in definition field of the entry 5 as " #4 \* #N " as soon as the weighing process is finished the total price will be calculated and saved with the other entries.

**#X**: Defines the entry where X is the entry number

#N: Defines the net value#T: Defines the tare value#G: Defines the gross value

#### 7.1.3 SCALE MANUFACTURER COMPANY INFORMATION

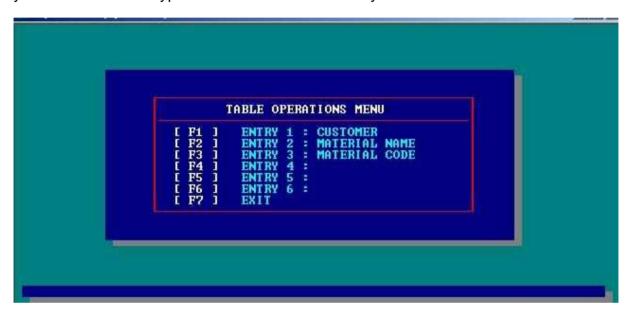
You can enter manufacturer company's information by pressing function key **[F3]** in the label info – entries submenu.

#### 7.1.4 EXIT

Pressing **[F4]** in the label data-entries submenu will take you back to the other operations menu.

#### 7.2 TABLE OPERATIONS

If you press the function key **[F2]** in the other operations menu you will get into the **TABLE OPERATIONS** submenu. You can prepare tables for each entry in this menu. By this way you don't need to retype the often used datas every time.



Press function keys **[F1]** to **[F5]** to add, delete or change a data for each entry or **[F7]** to return to the other operations menu.

When you press any function key between **[F1]** and **[F6]** to add, change or delete data of a table you will get into a new sub menu.



Here you can see pre entered values for this entry at the right side of the screen. You can add a new value by typing it directly and confirm with [ENTER] key. Also you can make changes or delete a value. Press the [TAB] key to select a value from the screen then press enter.

A new window appears.



Here pressing **[F1]** key deletes the value from the table. Or you can change the value by pressing **[F2]** key. Pressing **[F3]** key will take you to the table operations submenu.

#### 7.3 INBOUND WEIGHING FILE OPERATIONS

If you press the function key **[F3]** in the other operations menu you will get into the inbound weighing file operations submenu.



In this menu you can make changes on the uncompleted weightings or delete all uncompleted weightings or you can delete all records those had been made before a specific date.

To make changes or to delete an inbound weighing record, select it by arrow keys and press [F1]. You will get into a new submenu.



Here you can delete this record by pressing [F1] key or make changes on this record by pressing [F2].

Pressing [F3] key will take you back to the inbound weighing file operations submenu.

In the inbound weighing file operations submenu pressing **[F2]** will delete all uncompleted weighing records. When you press **[F2]** key LM 6 will ask you if you accept the deletion or not.



You can confirm deletion by pressing 1 or decline it by pressing 2.

If you press **[F3]** in the inbound weighing file operations submenu to delete the records which had been made before a specific date a new screen appears. After you specify the date by typing it and confirm with **[ENTER]** key LM 6 will ask you to confirm deletion.



You can confirm deletion by pressing 1 or decline it by pressing 2.

Pressing **[F4]** in the inbound weighing file operations submenu will take you back to the other operations menu.

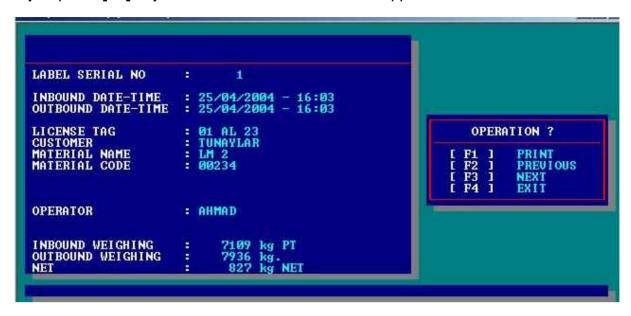
#### 7.4 OUTBOUND WEIGHING FILE OPERATIONS

If you press the function key **[F4]** in the other operations menu you will get into the operations of the weighed trucks submenu.



In this menu you can make operations on the outbound weighing records.

If you press [F1] key in this menu a new screen will appear.



Here you can call a completed weighing record by entering its label no.

Pressing **[F1]** key will print the weighing label related this record. You can get to the previous record by pressing **[F2]** or next record by **[F3]**. Pressing **[F4]** key will take you back to the outbound weighing file operations submenu.

In the outbound weighing file operations submenu pressing **[F2]** will delete all completed weighing records. When you press **[F2]** key LM 6 will ask you if you accept the deletion or not.

You can confirm deletion by pressing 1 or decline it by pressing 2.

If you press **[F3]** in the outbound weighing file operations submenu to delete the records which had been made before a specific date, a new screen appears. After you specify the date by typing it and confirm with **[ENTER]** key LM 6 will ask you to confirm deletion.



You can confirm deletion by pressing 1 or decline it by pressing 2.

Pressing **[F4]** key in the outbound weighing file operations submenu will take you to the **AUTOMATIC TRANSFER** settings menu.



The definition of the items in this menu had been given below.

**Automatic Transfer:** Here you have to select the kind of the transfer of the records (1 automatic transfer, 2 manual transfer)

**Transfer By:** Here you have to select the unit of the transfer period (Day, hour, minute or each record)

**Transfer Period:** Here you have to define the period of the automatic record transfer. (For example the meaning of the settings in the window above is, the automatic transfer will be performed every 1 day)

Last Transferred Record: Here you can see the serial number of the last transferred record, also you can change this number to define from which record the automatic transfer will be performed.

**Destination**: Here you can define the destination of the record file in which the data will be saved.

Pressing **[F5]** key in the OUTBOUND WEIGHING FILE OPERATIONS submenu will directly transfer the records to the destination file.

Pressing **[F6]** in the OUTBOUND WEIGHING FILE OPERATIONS submenu will take you back to the OTHER OPERATIONS menu.

#### 7.5 ONE-PASS WEIGHING OPERATIONS

If you press the function key [F5] in the other operations menu you will get into the ONE-PASS WEIGHING OPERATIONS submenu.

```
LIST OF FIXED TARED UEHICLES

01 AL 23
34 UA 0234

[ F1 ] NEW RECORD
[ F2 ] SELECTED UEHICLE INFO
[ F3 ] DELETE ALL RECORDS
[ F4 ] EXIT
```

In this submenu you can define a new truck, make changes on predefined truck info or delete it.

When you press [F1] to define a new truck another screen will appear.



After typing the license tag number and confirming it with [ENTER] key terminal will ask you to enter the tare of the truck. You can either enter it by typing directly or get the tare weight from the scale by pressing **[F1]** key. After confirming the tare weight with [ENTER] key you will automatically get back to the operations of the one-pass weighing operations submenu.

Also you can change or delete predefined truck info. To perform this action, select the truck you desire and press [F2] key. A new screen will appear.



Here pressing **[F1]** key will delete this definition. If you do this LM 6 will ask you to confirm deletion. You can confirm deletion by pressing **1** or decline it by pressing **2**.

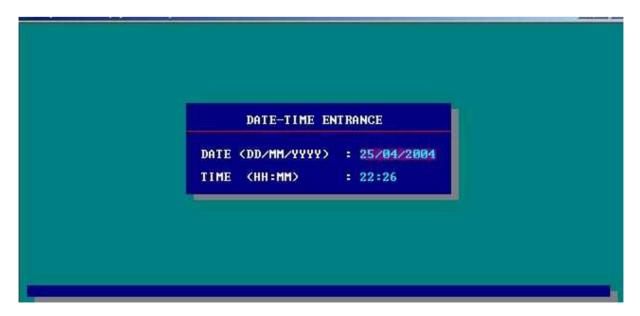
Also you can make changes on this definition by pressing **[F2]** key. Pressing **[F3]** will take you back to the one-pass weighing operations submenu.

If you press **[F3]** key in the one-pass weighing operations submenu to delete all predefined truck infos, LM 6 will ask you to confirm the deletion. You can confirm deletion by pressing **1** or decline it by pressing **2**.

And pressing [F4] will take you back to the other operations menu.

#### 7.6 DATE - TIME ENTRANCE

If you press the function key **[F6]** in the OTHER OPERATIONS menu you will get into the DATE – TIME ENTRANCE submenu.



Here you can change the date and time of the system.

#### 7.7 LABEL AND PRINTER SETTINGS

If you press the function key **[F7]** in the other operations menu you will get into the **LABEL AND PRINTER SETTINGS** submenu.



In this sub menu you can define the structure of the label and printer.

The meanings of the items in this submenu are given in the following.

#### **LABEL TYPE**

Here you can select the type of your label (STANDARD / CUSTOM) and confirm with [ENTER].

#### LABEL PRINTER

Here you can select the type of your printer (PARALLEL / SERIAL) and confirm with [ENTER].

#### PRINT ENTRY HEADERS?

This item is visible only if the label type had been selected as CUSTOM. If you select **1** for this value the entry headers will be printed on the label. If you select **2** they won't be printed.

#### **NO OF COPIES**

Here you can define how many copies of labels will be printed.

#### LINE FEED AT THE BEGINNING

Here you can define how many empty rows will be given at the beginning of the label.

#### LINE FEED AT THE END OF LABEL

Here you can define how many empty rows will be given at the end of the label.

After entering the values terminal will get back to the other operations menu automatically.

#### 7.8 PASSWORD OPERATIONS

If you press the function key **[F8]** in the other operations menu you will get into the PASSWORD OPERATIONS submenu.



Here you can change the operator password by typing new one for two times.

### 7.9 SERIAL PORT SETTINGS

If you press the function key **[F9]** in the OTHER OPERATIONS menu you will get into the SERIAL PORT SETTINGS submenu.



Here you can change your serial port settings.

The meanings of the items in this submenu are given in the following.

#### **STATUS**

This parameter defines the type of the connection. You can simply select by space bar as:

PRINTER : That means you are connecting to a standard serial printer via

the serial port.

HOST : That means you are connecting to a computer via the serial

port.

OUTBOUND SCALE : That means you are connecting to a OUTBOUND scale via

the serial port.

(EMPTY FIELD) : That means you are connecting to a nonstandard device via

the serial port.

#### **BAUD RATE**

This parameter defines the speed of the connection. (2400 / 4800 / 9600)

#### PARITY

This parameter defines parity bit of the data (Odd / Even / None)

#### **DATA BIT**

This parameter defines the length of the data string. (7 or 8 bits)

#### **STOP BIT**

This parameter defines how many stop bits you use at the end of the data string (1 / 2)

#### 7.10 SCALE USING INSTRUCTIONS

If you press the function key **[F10]** in the OTHER OPERATIONS menu you will get into the SCALE USING INSTRUCTIONS submenu.

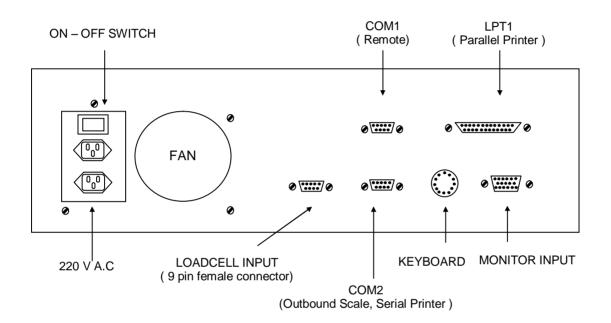


Here you can write instructions to the operator that will be seen for 15 seconds at the beginning as you turn the terminal on.

#### 7.11 RETURN TO THE MAIN MENU

If you press the function key **[F11]** in the OTHER OPERATIONS menu you will get back to the main menu.

# 8. TERMINAL BACK VIEW



# 8.1 SERIAL PORT CONNECTORS (DB9 Male COM1, COM2)

Pin No	RS232C (COM1)	RS232C(COM2)
1		
2	TXD	RXD
3	RXD	TXD
4		
5		LOJIK GND
6		
7	LOJIK GND	

#### 8.2 LOADCELL CONNECTOR PIN LAYOUT

D Type 9 pin female connector	Mean
1	+Excitation
2	+ Sense
3	Shield
4	- Sense
5	- Excitation
7	+Signal
8	- Signal

# 9. CALIBRATION

Before going into calibration procedure, we would like to explain the meaning of the parameters related scale capacity, readability and comma position.

C1= Increment size. Can be selected up to 12.000 division

C2= Increment step. Can be selected as 1,2 or 5

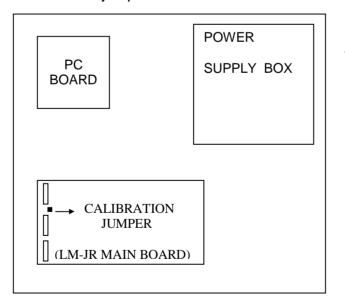
C3= Comma position. Can be selected as 0.0001, 0.001, 0.01, 0.1, 1, 10 Scale capacity = C1 X C2 X C3

Ex 1: If the scale is  $50000 \times 5 \text{ kg}$ , then C1 = 10000, C2 = 5, C3 = 1.

Ex 2: If the scale is  $60000 \times 20 \text{ kg}$ , then C1 = 3000, C2 = 2, C3 = 10

Ex 3: If the scale is  $1000 \times 0.1$  kg, then C1 = 10000, C2 = 1, C3 = 0.1

- Please disconnect the power and open top cover of LM 6.
- Connect the calibration jumper on scale board as shown below.



Top view of LM 6.

- Power on the LM 6 terminal and select the calibration menu Section 8.10.
- Please press F1 key to go into calibration:

The display	Description		
(S1 0)	Indicates that the weight display shows normal weight in kg. This parameter can be changed as 1 by $(\bigcirc)$ key. In this case, the weight display shows the internal counter. This feature can be used to read in high resolution to make corner adjustment. This value can be done 0 by $(x10)$ key. $(\checkmark)$ key used for the next step. Digital filter. $0$ – No filter, $1$ – Low, $2$ – Medium and $3$ – High filter.		
,	Can be selected by (x10) key. ( ) key used for the next step.		
( Calib )	To go forward please push ( ← ) key. You can use (x10) key to skip calibration. Increment size. (x10) key is used to select the proper value.		
( 3000) (C2 1) (C3 10)	Increment step. (x10) key is used to select the proper value. Comma position. (x10) key is used to select the proper value.		
( Unload )	Please unload the scale and press ( ) key. ( dEL 10 ) message will appear to indicate for waiting for 10 sn. to get zero reference. After 10 sec. the next step will come automatically.		
(Load)	Put a known weight on the scale and push ( ) key. The display will show (000000). The value of the weight which was written by (x10) and ( ) keys. You can select the digit by ( ) and increment by pushing (x10) key. Push ( ) key after the weight is written. ( dEL 10 ) message will appear to indicate for waiting for 10 sn. to learn the known weight. After 10 sec. the next step will come automatically.		
( Unload )	Please unload the scale and push ( ) key. (dEL 10) message will appear to indicate for waiting for 10 sn. to get zero reference. After 10 sec. the next step will come automatically.		
(Save)	To save the new calibration value (◄) key is pushed.		
(Calend)	Indicates end of calibration.		

Disconnect the power and take off the calibration jumper. Place the top cover of LM 6 and power the unit on.

# BAYKON ENDÜSTRİYEL KONTROL SİSTEMLERİ A.Ş.

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